VOLOKHOV, M. I.

VOLOKHOV, M.I.; MISYUMAS, L.K.; LEONT'YEV, O.P.

New dust meter. Priborostroenie no.4:18-20 Ap '57.

(MLRA 10:5)

(Measuring instruments) (Mine dusts)

VOLOKHOV, M.I., kand.tekhn.nauk; REVYAKINA, L.S.

Study of the accuracy of modern methods of dust control in the
mine atmosphere. Bor'ba s sil. 3:153-163 '59. (MIRA 12:9)
(MINE DUSTS)   (AIR--ANALYSIS)

VOLOKHOV, M., kand.tekhn.nauk (g.Alma-Ata)

Electric dust collector. Okhr.truda i sots.strakh. no.7:70-71
Jl '59.   (MIRA 12:11)
          (Dust collectors)

VOLOKHOV, M.I., kand.tekhn.nauk; MISYUNAS, L.K.

The EK-4 electronic konometer. Bor'ba s sil. 3:198-206
'59.   (MIRA 12:9)
          (MINE DUSTS)   (ELECTRONIC INSTRUMENTS)

VOLOKHOV, M.I., kand. tekhn. nauk; ISHRAKOV, K.L., inzh.; PRISHCHENKO, V.P.; STARIKOV, V.V.

Purification of mine air of dust with electric filters. Bor'ba s sil. 6:158-163 '61. (MIRA 18:2)

1. Institut gornogo dela AN KazSSR.

VOLOKHOV, M.I.

Danger of silicosis in Kazakhstan mines. Trudy Inst.gor.dela AN
Kazakh.SSR 15:11-16 '64.

Electronic dust counter. Ibid.:91-96   (MIRA 18:2)

VOLOKHOV, M.I.

Antidust measures in the Vostochno-Kounradskiy Mine. Trudy Inst.
gor. dela AN Kazakh. SSSR 10:201-203 '63.   (MIRA 16:8)

(Kounradskiy region—Mine dusts)

VOLOKHOV, M.I., kand.tekhn.nauk

New instruments for determining the dust content of the air in
mines. Sbor. rab. po silik. no.3:155-159 '61.   (MIRA 15:10)

1. Institut gornogo dela AN KazSSR.
                    (Mine dusts--Measurement)

VOLOKHOV, M.I.; PRISHCHENKO, V.P.; POPOV, N.K.

Dustiness of the air in several Kazakhstan pits. Trudy Inst.gor.
dela AN Kazakh.SSR 8:180-183 '61.   (MIRA 15:4)
                    (Kazakhstan—Mine dusts)

VOLOKHOV, M.I.

New methods of controlling air dustiness.   Trudy Inst. gor. dela
AN Kazakh.   SSR 7:164-174 '60.   (MIRA 14:6)
          (Mine dusts)

VOLOKHOV, M.I., kand.tekh n.nauk

Portable electric precipitator. Ugol' 36 no.2:47-48 F '61.

1. Komissiya pri AN KazSSR po bor'b' s silikozom.
   (Dust—Measurement)   (MIRA 14:2)

BEKLEMISHEV, N.D., otv.red.; KEKIN, A.A., otv.red.; VOLOKHOV, M.I., red.;
KHAMITOVA, V.Z., red.; SOKOLOV, A.G., red.; ROROKINA, Z.P.,
tekhn.red.

[Materials on a Republic-wide medical and technical conference
on silicosis control] Materialy Respublikanskoy nauchno-tekhni-
cheskoy i meditsinskoy konferentsii po bor'be s silikozom.
Alma-Ata, Izd-vo Akad.nauk Kazakhskoi SSR, 1959. 223 p.
(MIRA 13:4)

1. Respublikanskaya nauchno-tekhnicheskaya i meditsinskaya konfe-
rentsiya po bor'be s silikozom. Alma-Ata, 1957. 2. Chlen-korrespon-
dent AN KazSSR; Institut krayevoy patologii AN KazSSR (for Bekle-
mishev). 3. Predsedatel' Respublikanskoy komissii po bor'be s sili-
kozom pri AN KazSSR (for Kekin). 4. Zaveduyushchiy pylevoy labora-
toriyey (for Volokhov). 5. Zaveduyushchaya otdelom gigiyeny truda
Instituta krayevoy patologii AN KazSSR (for Khamitova).
(LUNGS--DUST DISEASES)

VOLOKHOV, N.I., kand. tekhn. nauk; RUBAN, F.I., kand.tekhn. nauk

Tensile strength of soil cement subjected to flexure.
Avt. dor. 22 no.5:5-6 My '59.   (MIRA 12:8)
          (Soil cement--Testing)

RAYEV-BOGOSLOVSKIY, Boris Sergeyevich, kand. tekhn. nauk; GLUSHKOV,
     Georgiy Ivanovich, doktor tekhn. nauk; TKACHENKO, Andrey
     Stepanovich, kand. tekhn. nauk. MANVELOV, Leon
     Ivanovich , kand. tekhn. nauk; MIKHAYLOV, Aleksandr
     Vasil'yevich, kand. tekhn. nauk; VOLOKHOV, Nikolay
     Ivanovich, kand. tekhn. nauk; TOLMACHEV, Ivan Nikolayevich,
     kand. tekhn. nauk; KUBAN, Fedor Iosifovich, kand. tekhn.
     nauk; MAKEYEV, K.S., nauchnyy red.; DEBERDEYEV, B.S., red.;
     GALAKTIONOVA, Ye.N., tekhn. red.

     [Durable pavement for airports] Zhestkie pokrytiia aero-
     dromov. [By] B.S.Raev-Bogoslovskii i dr. Moskva, Nauchno-
     tekhn.izd-vo M-va avtomobil'nogo transporta i shosseinykh
     dorog RSFSR, 1961. 321 p.   (MIRA 15:3)
       (Airports--Runways)   (Concrete construction)

MENDELEYEV, I.S., inzh.; VOLOKHOV, S.A., inzh.; SVERDLIK, L.V., inzh.

Power losses in the steel of d.c. machines with large inductance
values. Vest. elektroprom. 34 no.4:48-51 Ap '63.

VOLOKHOV, S.A.

Biological test using frogs as experimental animals. Lab. delo 5 no.1:17-21 Ja-F '59.   (MIRA 12:3)

1. Iz Moskovskogo oblastnogo nauchno-issledovatel'skogo instituta akusherstva i ginekologii (dir. O.D. Matspanova, nauchnyy rukovodi-tel - prof. V.P. Mikhaylov)
        (PREGNANCY--SIGNS AND DIAGNOSIS)
        (FROGS AS LABORATORY ANIMALS)

VALIYEV, K.G.; VOLOKHOV, S.G.; SHUL'TS, D.O., red.

[Time norms and prices for the repair of agricultural
machinery; manual for efficiency experts on state and
collective farms] Normativy vremeni i rastsenki na remont
sel'skokhoziaistvennoi tekhniki; posobie dlia normirov-
shchikov sovkhozov i kolkhozov. Moskva, Rossel'khozizdat,
1964. 335 p.   (MIRA 17:6)

1. Russia (1917- R.S.F.S.R.) Ministerstvo proizvodstva i
zagotovok sel'skokhozyaystvennykh produktov. Upravleniye
organizatsii truda i zarabotnoi platy.

VALIYEV, K.G.; VOLOKHOV, S.G.; LEVINA, L.G., tekhn. red.; SAYTANIDI,
L.D., tekhn. red.

[Time norms for the repair of agricultural machinery] Norma-
tivy vremeni na remont sel'skokhoziaistvennoi tekhniki. Mo-
skva, Izd-vo M-va sel'.khoz. RSFSR, 1962. 306 p.
(MIRA 15:4)

1. Russia (1917-   R.S.F.S.R.) Ministerstvo sel'skogo kho-
zyaystva. Upravleniye ekonomiki, organizatsii i spetsializatsii
sel'skogo khozyaystva, normirovaniya i oplaty truda.
(Agricultural machinery--Maintenance and repair)

VALIYEV, K.G.; MAKURIN, N.D.; VOLOKHOV, S.G.; NEUYMINA, M.M.;
    SAZONOV, V.V., red.; LEVINA, L.G., tekhn. red.

[Collection of consolidated approximate time norms for the
repairing of agricultural equipment] Sbornik ukrupnennykh
primernykh normativov vremeni na remont sel'skokhoziaistven-
noi tekhniki. Moskva, Izd-vo M-va sel'.khoz. RSFSR. Pt.1.
[Tractors, combines and motortrucks] Traktory, kombainy i
avtomobili. 1960. 195 p.   (MIRA 15:3)

1. Russia (1917-   R.S.F.S.R.) Ministerstvo sel'skogo kho-
zyaystva.Upravleniye organizatsii truda i zarabotnoy platy.
2. Otdel tekhnicheskogo normirovaniya Upravleniya organiza-
tsii truda i zarabotnoy platy Ministerstva sel'skogo kho-
zyaystva RSFSR (for Valiyev, Makurin, Volokhov, Neuymina).
              (Tractors—Maintenance and repair)
          (Motortrucks—Maintenance and repair)
        (Combines (Agricultural machinery))—Maintenance and repair)

VOLOKHOV, S. V.   *Volokhov, S V*

"Variants of the branching of the acromial artery in horse", (Aspirant, Department of General and Special Surgery), Collected Works No. 14, of Leningrad Veterinary Institute of Agriculture, P 174, Sel'khozgiz, 1954.

L. 00273-67

INVENTOR: Volokhov, S. A.

ORG: none

TITLE: Electric motor transverse field amplifier. Class 21, No. 184328 /announced by Scientific Research Electrical Engineering Institute (Nauchno-issledovatel'skiy elektrotekhnicheskiy institut)7

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 52

TOPIC TAGS: electric motor, transverse magnetic field

ABSTRACT: This Author Certificate presents an electrical motor transverse field amplifier with control windings on the longitudinal poles enclosing part of the armature pole sections. A second order field flux is produced in the armature pole sections by the transverse reaction of the armature and is closed along the poles placed along the transverse axis. Part of the armature winding is short-circuited by brushes (see Fig. 1). To increase the amplification factor with a three-stage amplifier, the brushes placed under unlike poles along the longitudinal axis are short-circuited. Brushes are placed along the transverse axis, from which the output voltage is taken. The poles placed along the transverse axis are split.

UDC: 621.313.236.3
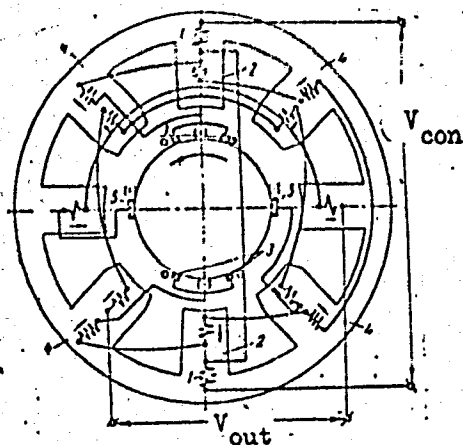
Card 1/2

L 09273-67

ACC NR: AP6029891

Fig. 1. 1 - control winding; 2 - poles along longitudinal axis; 3 - short-circuiting brushes along longitudinal axis; 4 - poles along transverse axis; 5 - brushes along transverse axis

Orig. art. has: 1 diagram.

SUB CODE: 09/ SUBM DATE: 23Mar64

VOLOKHOV, V.A., inzh.

Determination of vibration modes for settling a concrete
solution using radioactive isotopes. Energ. stroi. no.33:
53-59 '63.
(MIRA 17:8)

1. Nauchno-issledovatel'skaya stantsiya Moskovskogo filiala
Vsesoyuznogo instituta po proyektirovaniyu organizatsiy ener-
geticheskogo stroitel'stva.

VARTAZAROV, S.Ya., kand.tekhn.nauk; VOLOKHOV, V.A., inzh.; OREKHOV, A.A., inzh.

Inspecting the quality of reinforced concrete elements using a radiometric method. Energ. stroi. no.20:62-64 '61. (MIRA 15:1)

1. Moskovskiy filial instituta "Oregenergostroy".
(Precast concrete--Testing)
(Gamma-rays--Industrial applications)

BIBIKOVA, V.A.; VOLOKHOV, V.A.; SINTSOVA, V.I.

Possiblie epizootologic role of bird fleas. Med.paraz. i paraz.bol.
25 no.2:160-162 Ap-Je '56.   (MIRA 9:8)

Cortnal Herri

1. Iz Sredneaziatskogo nauchnO-issledovatel'skogo protivochumnogo
insituta.
        (FLEAS
            of birds, transmission of plague in rodents)
        (PLAGUES, transmission
            by bird fleas in rodents)

ACC NR: AP6033622   SOURCE CODE: UR/0102/66/000/005/0015/0027

AUTHOR: Volokhov, V. S. (Kiev); Zaychenko, Yu. P. (Kiev)

ORG: none

TITLE: Dispersion method of spontaneous division of image space into compact sets-images

SOURCE: Avtomatyka, no. 5, 1966, 15-27

TOPIC TAGS: image recognition, recognition process, INFORMATION THEORY

ABSTRACT: The possibility of using the main components of a spot matrix of covaria-tions for image recognition is described. It is pointed out that in cases when classifying functions are linear, the vector with small proper value serves as a sufficient description and can be used for optimum classification. The article presents a dispersion method for spontaneous training of the recognition system. The use of the vector with the greatest proper value for solution of a spontaneous image recognition problem is shown. The authors proposed a method of successive sub-division of spot space into categories, based on the calculation of the main vector of a spot matrix of covariation. Two examples are given of spontaneous optimum subdivision of image space into two images (classes). Orig. art. has: 4 figures, 14 formulas, and 5 tables.

SUB CODE: 09/ SUBM DATE: 12May66/ ORIG REF: 006/ OTH REF: 003/
Card 1/1

GELLER, L.I.; SAKAYEVA, S.Z.; MUSINA, S.S.; KOGAN, Ya.D.; BELOMYTTSEVA,
L.A.; OSTROVSKAYA, R.S.; VOLOKHOV, Ya.P.; LUK'YANOVA, Ye.S.;
POPOVA, R.M.; MOSKATEL'NIKOVA, Ye.V.

Effect of noise on arterial pressure; etiology of hypertension.
Ter. arkh. 35 no.7:83-86 Jl'63   (MIRA 17:1)

1. Iz kliniki (zav. - starshiy nauchnyy sotrudnik L.I.Geller)
Ufimskogo nauchno-issledovatel'skogo instituta gigiyeny i
professional'nykh zabolevaniy (dir. - kand. med. nauk G.M.
Mukhametova).

VOLOKHOV, IU.D.

RT-1176 (Investigation of the longitudinal static stability of a multi-engine airplane in flight) Issledovanie prodol'noi staticheskoi ustoichivosti mnogomotornogo samoleta v polete.
TRUDY TSENTRAL'NOGO AERO-GIDRODINAMICHESKOGO INSTITUTA, (490): 3-15, 1939.

MENDELEYEV, I.S.; VOLOKHOV, S.A.

Results of the study of some composite d.c. machines. Izv. vys.
ucheb. zav.; elektromekh. 7 no.6:674-687 '64.   (MIRA 17:7)

VOLOKHOV, V.; KIZIMOVA, S.; FAYBISOVICH, B., red.

[Industrial Bryansk Province; an essay on the history of the industrial development of Bryansk Territory] Brian-shchina industrial'naia; ocherk istorii promyshlennogo razvitiia Brianskogo kraia. Briansk, Izd-vo "Brianskii rabochii," 1964. 214 p.   (MIRA 17:12)

VOLOKHOV, V.A., inzh.

Control of the thickening of a concrete mixture using a radioisotope
type density meter. Energ. stroi no.39:59-63 '64.   (MIRA 17:11)

VOLOKHOV, V.A.; NEKRASOV, A.I.

Using styrene-acryl resin in repair work. Mashinostroitel'
no.4:12 Ap'64   (MIRA 17:7)

LITVINOVA, R.Ye., inzh.; YERAKHTIN, B.M.; VOLOKHOV, V.A.; SHILOV, V.A.

Pouring of concrete mixture at the Bukhtarma Hydroelectric Power
Station in long blocks without longitudinal seams. Energ. stroi.
no.16:13-15 '60.   (MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki imeni
B.Ye. Vedeneyeva (for Litvinova). 2. Stroitel'stvo Bykhtarminskoy
gidroelektrostantsii (for Yerakhtin). 3. Moskovskiy filial Vsesoyuz-
nogo instituta po proyektirovaniyu organizatsiy energeticheskogo
stroitel'stva (for Volokhov, Shilov).

ALIMPIYEV, G.G.; VOLOKHOV, V.F.; SHUBIN, L.N.

Unit for the drying and reclamation of transformator oil. Rats.
predl. na gor. elektrotransp. no.9:61-63 '64.

(MIRA 18:2)

1. Upravleniye tramvaya Lipetska.

L 13907-66   EWT(m)/EPF(n)-2/EWP(b)/EWP(t)   IJP(c)   JD/JC

AUTHORS: Gorshkov, V. I.; Volokhov, Yu. A.

ORG: Moscow State University, im. M. V. Lomonosov, Department of Physical Chemistry (Moskovskiy gosudarstvennyy universitet, Kafedra fizicheskoy khimii)

TITLE: Distribution of a mixture of cesium and rubidium chlorides in the system of water phenol

TOPIC TAGS: phenol, water, rubidium compound, cesium compound, phase equilibrium, solvent extraction

ABSTRACT: To extend the literature data on the ion-exchange and the distribution chromatography of a phenol-containing solvent system as presented by C. Gualandi, I. Mazzei, and G. Burana (Ann. Chim., 49, 1941, 1959), the distribution coefficients of mixtures of CsCl and RbCl in the system of water-phenol were determined. The measurements were made at 20C. The salt concentrations in the water and phenol layer were determined by flame-photometry, and the magnitude of the distribution coefficient K_{Rb}^{Cs}

$$\bar{K}_{Rb}^{Cs} = \left(\frac{c_{Cs}}{c_{Rb}}\right)_{phenol} \bigg/ \left(\frac{c_{Cs}}{c_{Rb}}\right)_{water}$$

UDC: 546.35/.36'131

Card 1/2

L 13907-66

ACC NR: AP6002817 $\bigcirc$

was determined as a function of the initial salt ratio and total salt concentration. The experimental results are tabulated. It was found that K_{Rb}^{Cs} increased with

increase in the total salt concentration and that cesium chloride tends to concentrate in the phenol layer. It is concluded that the system of water-phenol is a satisfactory solvent extraction system for the separation of cesium chloride from rubidium chloride and it is pointed out that the difference in density between the water and phenol layers is sufficiently large to permit the successful extraction of cesium without the aid of an auxiliary agent. Orig. art. has: 1 table and 1 equation.

SUB CODE: 07/ SUBM DATE: 01Jul65/ ORIG REF: 004/ OTH REF: 010

Card 2/2

VOLOKHOVA, A. A., Cand Biol Sci -- (diss) "Soil solutions of the down-
stream portion of the Syr-Dar'ya River." Alma-Ata, 1959. 16 pp; (Min-
istry of Higher Education, Kazakhstan State Univ im S. M. Kirov, Biol-
ogy-Soils Faculty); 150 copies; price not given; (KL, 17-60, 146)

COUNTRY   : USSR   J
            : Soil Science, Physical and Chemical Properties
               of Soil
ABS. JOUR.: Ref Zhur-Biologiya, No. 5 , 1959, No. 20069

AUTHOR   : Volokhova, A.A.
INST.   : AS Kazakh SSR
TITLE   : Soil Solutions in the Downstream Part of   \
             Syr-Dar'ya River

ORIG. PUB.: Tr. in-ta pochvoved. AN KazSSR, 1958, 8,
             121-155
ABSTRACT : No abstract

CARD :   1/1

FRATKIN, Z.G.; VOLOKHOVA, M.I.; POLIVANOVA, N.G.

Spectral analysis of high purity iodine.   Zav.lab. 27
no.7:846-848 '61.   (MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh
reaktivov.   (Iodine--Spectra)

USSR/Human and Animal Physiology - Action of Physical Factors.   T-13

Abs Jour   : Ref Zhur - Biol., No 7, 1958, 32333

Author   : Volokhova, N.A.
Inst   :
Title   : On the Changes of Reaction to Pyrogenic Stimuli During
              General Exposure of Rabbits to X-RAys.

Orig Pub   : Tr. 1-y Zakavkazsk. konferentsii po med. radiol. Tbilisi
              Gruzmedgiz, 1956, 110-113.

Abstract   : General exposure to 1000-1500 r gave a feverish reaction
              (FR), caused by the introduction of a lethal culture of
              Bacillus mesentericus (1 ml/kg); the degree of the depres-
              sion depended on the size of the dose. FR proceeded aty-
              pically at different stages of radiation sickness. It is
              proposed to use FR as a test for an evaluation of the con-
              dition of the heat-regulation center during radiation
              sickness.

Card 1/1

U.S.S.R. / Human and Animal Physiology. Thermoregu-   T
          lation.

Abs Jour: Ref Zhur-Biol., No 5, 1958, 22034.

Author   : Volokhova, N.A.
Inst   : Not given.
Title   : Changes of the Thermid Reaction to Pyrogenic
           Stimulants During General Irradiation of Rab-
           bits with Roentgen Rays.

Orig Pub: Med. Radiologiya, 1956, 1, No 4, 25-30.

Abstract: The functional condition of the heat regulating
          centers was investigated. Subject to the basic
          experiment was the febrile reaction produced by
          subcutaneous injection of vaccine (Bacillus
          Mesenterious). Irradiation with 1000R did not
          produce any changes in the reaction from the

Card 1/2

Inst   : Institute of Experimental
           Medical Sciences, Leningrad.
Title   : The Effect of General Irradiation with X-Rays Upon the
           Febrile Reaction to Pyrogenic Stimulants in Rabbits.

Orig Pub: Ezhegodnik, In-t eksperim. med. Akad. Med. SSSR,
          1956, 417-420.

Abstract: Rabbits were irradiated over the whole body with 1500r
          and were injected subcutaneously 24 hours later with
          a killed culture of Bacillus mesentericus (1 ml/kg
          of weight). The febrile reaction that followed was
          less intense than prior to the irradiation, and occa-
          sionally, instead of the usual elevation of T^o a fall

Card   : 1/2

Human and Animal Physiology. Action of Physical Agents.   T

Abs Jour: Ref Zhur-Biol., No 8, 1958, 37012.

of T^0 was observed. The febrile reaction to injection
of the pyrogenic culture in the following days was
usually fluctuating. Occasionally there was noted a
distortion and a paradoxical reaction to injection
of the pyrogen, manifested by sharp fluctuations of
the temperature curve and phenomena of hypothermic
reactions. Irradiation of rabbits with a dose of
100r was either ineffective or had a lesser effect
on the febrile reaction of the animals following
injection of pyrogen. The course of radiation sick-
ness in the rabbits subjected additionally to the
effect of a febrile reaction was of the same severity
as that of controls submitted to similar irradiation
only.

Card   : 2/2   135

VOLOKHOVA, N.A.

Comparative characteristics of leucocytic and temperature reactions
of animals to radiation action. Med.rad. no.6:53-58 '61.
(RADIATION---PHYSIOLOGICAL EFFECT) (BODY TEMPERATURE)   (MIRA 15:1)
(LEUCOCYTES)

USSR/General Problems of Pathology. Pathological Physiology of In-   U-3
fection

Abs Jour : Ref Zhur - Biol., No 13, 1958, No 61014

Author   : Volokhova N.A.
Inst   : -
Title   : The Effect of Induced Fever on the Course of an Experimental
            Lethal Intoxication with Diphteria.

Orig Pub : V sb. Fiziol. mekhanismy likhoradochnoly radktsii. Leningrad.
            Medgiz. 1957, 275-284

Abstract : Rabbits who had been injected diphteria toxin (DT) with a back-
            ground of fever caused by an administration of turpentine, sur-
            vived by 16 percent longer than the control animals. In
            cases when the fever had been produced by an administration of
            typhoid vaccine (TV), death caused by a two stage injection of
            smaller doses of DT, occurred by 40 percent later than in the
            control group. After being warmed up in a chamber, and TV in-
            jected in 4 stages, the injection of small doses of DT is less
            effective (life was prolonged by 23-48 percent). Rabbits who
Card   : 1/2

27

VOLOKHOVA, N.A.

Change in motor activity of rabbits after irradiation. Med.rad.
no.7:45-49 '61.
    (RADIATION--PHYSIOLOGICAL EFFECT) (MEVEMENT DISORDERS)
                                                    (MIRA 15:1)

VOLOKHOVA, N.A.

Effect of seasonal factors on the injurious action of ionizing radiation. Med. rad. 6 no.1:36-41 '61.

(RADIATION—PHYSIOLOGICAL EFFECT)   (MIRA 14:3)

(WEATHER—MENTAL AND PHYSIOLOGICAL EFFECTS)

ACCESSION NR: AP4018286

AUTHOR: Volokhova, N. A.

S/0241/64/009/002/0075/0080

TITLE: Temperature reaction of monkeys to gamma-irradiation

SOURCE: Meditsinskaya radiologiya, v. 9, no. 2, 1964, 75-80

TOPIC TAGS: gamma-irradiation 15,000 r dose, monkey body temperature change, dog body temperature change, hypothermia, hyperthermia, central nervous system, heat regulatory mechanism damage

ABSTRACT: Monkeys were gamma-irradiated with single 350, 6,500, 10,000, and 15,000 r doses (EGO-2 unit, 336 r/min) to determine rectal and body temperature changes. Temperature data for monkeys were compared with literature data for dogs irradiated with 350, 15,000, and 30,000 r doses under similar conditions. Findings indicate that the heat regulatory function is depressed in monkeys with considerably smaller radiation doses than in dogs. With equal radiation doses (15,000 r) the temperature reactions of dogs and monkeys differ. Monkeys develop deep hypothermia immediately after irradiation and dogs undergo alternate phases of hyperthermia and hypothermia with no

Card 1/2

ACCESSION NR: AP4018286

depression of heat regulatory functions. The higher radiosensitivity of monkeys is also confirmed by the survival rates of 3 to 13 hrs for monkeys and 12 to 27 hrs for dogs. The more highly developed central nervous system of monkeys is more radiosensitive and this affects the radioresistance of their heat regulatory mechanism. Orig. art. has: 5 figures.and 1 table.

ASSOCIATION: None.

SUBMITTED: 27May63   DATE ACQ: 18Mar64

SUB CODE: LS   / NR REF SOV: 009   ENCL: 00

OTHER: 000

Card 2/2

L 03781-67   EWT(m)   GD

ACC NR: AT6029629   SOURCE CODE: UR/0000/66/000/000/0150/0157

AUTHOR: Volokhova, N. A.; Gubin, V. A.; Darenskaya, N. G.; Koznova,
L. B.; Korchenkin, V. I.; Nevskaya, G. F.; Sedov, V. V.

ORG: none

TITLE: Peculiarities of clinical manifestations of radiation sickness
in rhesus monkeys during gamma-ray irradiation.

SOURCE: Voprosy obshchey radiobiologii (Problems of general radio-
biology). Moscow, Atomizdat, 1966, 150-157

TOPIC TAGS: hematology, radiation biologic effect, monkey, dog, ionizing radiation,

ABSTRACT: A comprehensive clinical examination of gamma-irradiated
monkeys was conducted, and the data were compared with results of similar
examinations of dogs. Seventeen monkeys (Macaca rhesus) of both sexes
weighing 2.0 to 4.0 kg, were subjected to gamma irradiation from an
EGO-2 apparatus with a dose rate of 357—313 r/min. Prior to irradia-
tion, all monkeys had been under clinical observation for 2—3 weeks.
Eleven of the 14 monkeys irradiated with 300 r died (average duration
of life 16.5 days), while two of the 3 monkeys irradiated with 350 r
died (29.5 and 36.2 days after irradiation). Both groups of gamma-

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L 03781-67

ACC NR: AT6029629

irradiated monkeys were considered together, since the clinical mani-
festations of radiation sickness were similar in both groups. Experi-
mental data were compared with data from analogous dog experiments,
using a 300-r dose of gamma rays, and no essential differences in the
radiation effect were noted between the two species. However, the
spread of life durations in monkeys (6.5—36.2 days) was wider than for
dogs (11.5—18.5 days). The primary reaction to radiation was more
pronounced and developed more rapidly in monkeys than in dogs. The
primary radiation reaction was absent in 2 out of 17 monkeys, as com-
pared with 18 out of 28 dogs. Furthermore, seven monkeys experienced
severe primary radiation reactions, while none of the dogs did. In the
first 10—11 days after irradiation, no essential differences were
noted between the temperature reactions of monkeys and dogs. However,
by the time of death dogs had elevated body temperatures (average 1.5C
above normal), whereas monkeys' temperatures had fallen considerably
below normal. Symptoms of radiation sickness appeared later (15—18
days after irradiation) and developed more gradually in monkeys than in
dogs (7—12 days). Autonomic dysfunction is considered responsible
for the lability of symptoms in monkeys in the early postradiation
period. This hypothesis is substantiated by the considerable varia-
tions in blood pressure, the unstable heart rhythm, etc. Hematopoietic
changes in monkeys in response to radiation had a phase character,
demonstrating the different course of the radiation reaction in different

Card 2/3

L 03781-67

ACC NR: AT6029629   O

types of cells. Since blood regeneration occurred even in monkeys
dying after 30—36 days, it was concluded that blood changes were not
the primary factor in animal deaths. The lower lethal dose values
encountered in these experiments are partially explained by differing
experimental conditions, but require further study. Orig. art. has:
2 figures and 1 table.   [JS]

SUB CODE: 06/ SUBM DATE: 23Apr66/ ORIG REF: 008/ OTH REF: 006
ATD PRESS: 5764

Card 3/3

VOLOKHOVA, N.A.

Inidividual sensitivity of dogs to the effect of radiation.
Med. rad. 9 no.11:40-45 N '64.   (MIRA 18:9)

VOLOKHOVA, N.A.

Capital assets of the liqueur-and -vodka industry in the
Ukrainian S.S.R. Khar. prom. no.4:71-74 O-D '65.

(MIRA 18:12)

L ̄ ̄ ̄ ̄

ACCESSION NR: AP5017762   UR/0216/65/000/004/0500/0506
                                                                 629.195:612.172.1

AUTHOR: Vartbaronov, R. A.; Volokhova, N. A.

TITLE: Characteristics of the adaptation of man to the prolonged effects of
Coriolis acceleration

SOURCE: AN SSSR. Izvestiya. Seriya biologicheskaya, no. 4, 1965, 500-506

TOPIC TAGS: Coriolis acceleration, human adaptation, biological effect, nystagmus,
motion sickness, vestibular analyzer, rotation, space flight factor

ABSTRACT: Previous experiments by the author on human adaptation to Coriolis ac-
celeration showed that the extent of motion sickness depends on the speed of rotation
of the room and on the degree of vestibular sensitivity of the subjects. In this
work 12 subjects with lowered vestibular sensitivity were placed in a rotating
room (0.9, 1.18, and 3.5 rpm) for 4, 24, and 72 hr. Vestibular reactions were
tested in a variety of ways: by electrothermics, electrocardiography and capillaro-
scopy (vestibular-autonomic reactions), electronystagmography, and filming of
movements (vestibular-somatic reactions), seat sensitivity measurements were

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L 63547-65

ACCESSION NR: AP5017762

toms included headaches, weakness, loss of energy, somnolence, and limitation of motor and mental activity. These phenomena developed in people with lowered vestibular sensitivity 20—30 min after the beginning of rotation (1.8 rpm) and disappeared completely in 5—7 hr; in subjects with normal vestibular sensitivity the symptoms appeared in 5—7 hr at 1.8 rpm and disappeared after 30—40 hr. Acute motion sickness (shivering, vomiting, tachycardia, etc.) occurred only in subjects with lowered vestibular sensitivity at 3.5 rpm. The tendency to adaptation under the influence of rotation was observed in a number of physiological indices, including skin thermometry and cardiac and other indices, which first decreased and then increased, approaching initial values. Subjective analysis of vestibular-autonomic disturbances was confirmed by objective criteria of the degree of adaptation, including working capacity, peripheral blood circulation, and vestibular motor reactions such as nystagmus. Aftereffects for 1—2 days) consisting of headaches, somnolence, and nausea while traveling indicate readaptation of the organism to the normal environment. It was concluded that the proposed experimental method for vestibular training. Orig. art. has: 1 table and 6 figures.

[JS]

ASSOCIATION: none

Card 2/3

L 63527-65

ACCESSION NR: AP5017762

SUBMITTED: 09Sep64   ENCL: 00   SUB CODE: LS

NO REF SOV: 008   OTHER: 007   ATD PRESS: 4050

Card 3/3

ARLASHCHENKO, N.I.; BOKHOV, B.B.; BUSYGIN, V.Ye.; VOLOKHOVA, N.A.;
GRIGOR'YEV, Yu.G.; POLYAKOV, B.I.; FARBER, Yu.V.

Body reactions during the prolonged effect of coriolis accelera-
tions. Biul. eksp. biol. i med. 56 no.8:28-33 Ag '63.

(MIRA 17:7)

1. Nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR
prof. A.V. Lebedinskiy. Predstavleno deystvitel'nym chlenom
AMN SSSR A.V. Lebedinskim.

L 15690-65   EWG(j)/EWT(m)/FCS(b)   Pb-4   ASD-3/AFFTC/AFWL/AMD/SSD
ACCESSION NR: AP4049085   S/0241/64/009/011/0040/0045

AUTHOR: Volokhova, N. A.

TITLE: Individual sensitivity of dogs to radiation

SOURCE: Meditsinskaya radiologiya, v. 9, no. 11, 1964, 40-45

TOPIC TAGS: radiation sickness, dog, physical stress, radioresist-
ance, gamma radiation

ABSTRACT: It is well known that the severity of radiation sickness
and the survival rate in animals depends on the initial functional
state of the organism. The latter is determined by such factors as
weight, sex, and season, and is reflected by the organism's compen-
sating reactions to altered conditions, for example, to measured
physical stresses.

The present study is an attempt to relate individual variations in
the sensitivity of dogs to identical doses of radiation to their
individual compensating reactions to similar doses of physical stress

Card 1/4

L 15690-65
ACCESSION NR: AP4049085   0

created by exercise on a treadmill and total-body heating in a lamp
box.

The experiments were conducted on 3 female and 18 male dogs from 1 to
2 years old. Physical stress consisted of a treadmill run at 6 km/hr
for 30 min and heating in a lamp box with an ambient air temperature
of 45C to 50C for 1 hr. The functional state of the dogs was followed
for 3 to 4 hr following stress by monitoring changes in body tempera-
ture. respiration, pulse, total leukocyte count, and peripheral blood.

The dogs were exposed to gamma radiation from an EGO-2 apparatus in
doses of 300 r (14 dogs) and 250 r (7 dogs). Seven of the 21 dogs
survived and 14 died at various periods following irradiation.

The statistical correlation between length of life and the pulse rate
and elevation in rectal temperature at various periods following ex-
ercise and heating was worked out. The coefficient of correlation be-
tween length of life and 30-min pulse rates was 0.65, and the correla-
tion between length of life and 1-hr body temperatures was 0.47.

Card   2/4

L 15690-65
ACCESSION NR: AP4049085 O

The results obtained lead to the conclusion that the degree of radia-
tior injury depends not only on the total absorbed dose, but also on
the character of the organism's compensating reactions. The correla-
tion between length of life following irradiation and the functional
state as reflected by cardiovascular activity was particularly well
confirmed statistically. Leukocyte counts were found to be statisti-
cally nonsignificant and were discarded as an index.

The thermoregulatory function of the organism was also found to be in
correlation with radioresistance. It is known that the higher the
skin temperature of dogs immediately following heating, the better
the state of their thermoregulatory function. It was found that the
animal's radioresistance is directly related to its initial functional
state as reflected by the state of the thermoregulatory function.

Higher nervous activity was also found to be an indicator of the func-
tional state of the organism and thus of the organism's radioresistance.
Dogs which were alert, energetic, and adapted quickly to the experi-
mental conditions without showing severe fatigue, and which displayed

Card   3/4

L 15690-65
ACCESSION NR: AP4042085

no essential behavioral changes following irradiation, usually lived
longer. On the other hand, dogs which were passive and fearful, which
did not adapt to experimental conditions, refusing to run on the
treadmill or get into the lamp box, and which tired easily, most often
showed motor dysfunction, weakness of posterior extremities, inability
to jump up on things, loss of appetite, and other more serious symp-
toms of radiation sickness. Orig. art. has: 1 table.

ASSOCIATION: none

SUBMITTED: 30Mar63   ENCL: 00   SUB CODE: LS

NO REF SOV: 004   OTHER: 001   ATD PRESS: 3144

Card 4/4

VOLOKHOVA, N.A   .7

AUTHOR: Lebedinskiy, A. V.; Arlashchenko, N. I.; Busygin, V. Ye.; Vartbaronov, R. A.; Veselov, A. S.; Volokhova, N. A.; Grigor'yev, Yu. G.; Yesel'yanov, M. D.; Kalyayeva, T. V.; Krylov, Yu. V.; Polyakov, B. I.; Farber, Yu. V.

TITLE: Effects of Coriolis accelerations on the human organism

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963. Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy* konferentsii. Moscow, 1963, 339-343

TOPIC TAGS: vestibular analyzer, cosmonaut selection, cosmonaut training, semi-circular canal, acceleration, rotation, nystagmus, optical analyzer, Coriolis acceleration

ABSTRACT: Studies of the effect of prolonged Coriolis accelerations on the human organism must be made as a preliminary step toward the creation of artificial gravity in spaceships. Studies were performed in a slowly rotating MBK-1 chamber (a cylindrically shaped room 2.1 m in diameter and 2.3 m high, equipped with two armchairs). In the first series of experiments, 13 healthy persons were subjected

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ACCESSION NR: AT4042700

to prolonged rotation of 1 to 5 hours at an angular velocity of 5.3°/sec. In the second series of experiments, 4 subjects were rotated for 24 hours at angular velocities of 5.3, 10.6, and 21.2°/sec. Coriolis accelerations were created peri-odically by tilting the body and head in a plane perpendicular to the plane of rotation of the chamber at the rate of 1 movement/sec. Prolonged stay of subjects with normal vestibular sensitivity under conditions of rotation at 5.3, 10.6, and 21.2°/sec resulted in functional changes in the condition of the central nervous system and the cardiovascular system, and in disruption of the body temperature control and the balancing function. The degree of vegetative disorders was found to be directly proportional to the speed of rotation and the degree of vestibular sensitivity of the subjects. During cumulative action of Coriolis accelerations, the majority of the subjects developed an adaptation which was noted from 1 to 5 hours after beginning of the rotation. On the basis of the results obtained, the method of prolonged slow rotation is recommended for training purposes.

ASSOCIATION: none

SUBMITTED: 27Sep63   INCL: 00   SUB CODE: LS

NO REF SOV: 000   OTHER: 000

Card 2/2

VOLOKHOVA, N.A.

Thermal reactions in monkeys to the effect of radiation. Med.
rad. 9 no.2:75-80 F.'64.

(MIRA 17:9)

VOLOKHOV, N.I.

3

PHASE I BOOK EXPLOITATION   SOV/5973

Rayev-Bogoslovskiy, Boris Sergeyevich, Georgiy Ivanovich Glushkov, Andrey
Stepanovich Tkachenko, Aleksandr Vasil'yovich Mikhaylov, Leon Ivanovich Manvelov,
Nikolay Ivanovich Volokhov, Ivan Nikolayevich Tolmachev, and Fedor Iosifovich
Ruban

Zhestkiye pokrytiya aerodromov (Hard Surface Covers of Airfields) Moscow,
Avtotransizdat, 1961. 321 p. 2000 copies printed.

Ed.: B. S. Doberdeyev; Tech. Ed.: Ye. N. Galaktionova.

PURPOSE: This book is intended for technical personnel and may prove useful to
students at technical schools.

COVERAGE: The book discusses the properties, characteristic features, and con-
struction of runways, taxiways, stands for airplanes, and platforms for passen-
gers to be used in the various climatic and geological regions of the USSR. The
following are reviewed: specifications of materials, modern airfield-surface
covers (one- and two-layer concrete, ferroconcrete, prestressed, monolithic, and

Card 1/6

axes was used, and released _ cr
orientations of the crystal towards the axis. The para-
magnetic specific-heat const. of $CuSO_4 \cdot 5H_2O$ was found to be
to the magnetic axis $= 0.4 \times 10^6 (Oe)^2$ $(b/c)_1$ =

$(NH_4)_2SO_4 \cdot 12H_2O$, 0.28×10^5 (Oe), No depe
orientation was discovered in the last 2 substances. Meas-
urements of the relaxation time was time a dependence in
$CuSO_4 \cdot 5H_2O$ and no dependence for the other

S/058/61/000/010/050/100
A001/A101

J47900

AUTHOR: Volokhova, T.I.

TITLE: Paramagnetic relaxation in some copper salts

PERIODICAL: Referativnyy zhurnal.Fizika, no.10, 1961, 164, abstract 10V367 (V sb. "Paramagnitn. rezonans", Kazan', Kazansk. un-t, 1960, 120 - 123)

TEXT: The author investigated paramagnetic relaxation in parallel fields at room temperature at frequencies of 600 and 10.5 Mc of a variable field in powders of Cu oxalates; the Zavoyskiy method of grid current was employed. Absorption coefficients χ" (H) were measured in dependence on orientation of the single crystal in the magnetic field and the time of spin-lattice relaxation was determined. The specific statical magnetic susceptibility of the indicated substances was also measured by the Gui method.

L. Sorokina

[Abstracter's note: Complete translation]

Card 1/1

VOLOKHOVA, T.I.

     Experimental test of the thermodynamic theory of spin-spin
paramagnetic relaxation in single crystals of salts of the
iron group depending on their orientation in a parallel
magnetic field H_o. Izv. vys. ucheb. zav.; fiz. no.4:80-84'64

     1. Kazanskiy gosudarstvennyy universitet.

VOLOKHOVA, T. I., CAND PHYS-MATH SCI, "~~INVESTIGATION~~ *Study* OF

PARAMAGNETIC RELAXATION IN SINGLE CRYSTALS OF SALTS OF ~~THE~~ *under*

IRON GROUP ELEMENTS IN PARALLEL FIELDS ~~AT~~ ROOM TEMPERATURES."

KAZAN', 1961. (MIN OF HIGHER AND SEC SPEC ED RSFSR. PERM'

STATE UNIV IMENI A. M. GOR'KIY). (KL-DV, 11-61, 208).

L 23241-66   EWT(1)/EEC(k)-2/T/EWP(k)   IJP(c)   WG

ACC NR: AP6009152

SOURCE CODE: UR/0139/65/000/005/0153/0157

AUTHOR: Volokhova, T. I.

ORG: Kazan' State University im. V. I. Ul'yanov-Lenin (Kazanskiy gosudarstvennyy universitet)

TITLE: Paramagnetic relaxation in single crystals of alsts of the ions Mn^{++}, Cr^{+++}, Fe^{+++}, and Cu^{++} as functions of their orientation in a parallel constant magnetic field at room temperature

SOURCE: IVUZ. Fizika, no. 5, 1965, 153-157

TOPIC TAGS: paramagnetic relaxation, single crystal, spin lattice relaxation, paramagnetic relaxation, copper compound, chromium compound, iron compound, manganese compound

ABSTRACT: The author has measured the coefficient of paramagnetic absorption in single crystals of hydrated salts of $MnSO_4$, $Mn(NH_4)_2$, $Fe(NH_4)(SO_4)_2$, $CrK(SO_4)_2$, $CuSO_4$, $Cu(NH_4)_2(SO_4)_2$, $CuK_2(SO_4)_2$, and $CuCl_2(NH_4)_2Cl_2$, as functions of their orientation in a constant magnetic field, at 10.5 Mc by the grid-current method of Ye. K. Zavoyskiy (Doctoral Dissertation, FIAN 1944). The purpose of the investigation was to check the validity of the Brons--Van Vleck formula (Phys. Rev. v. 57, 426, 1940) for the single crystals. In addition, the spin-lattice relaxation

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L 23241-66
ACC NR: AP6009152

2

time was calculated by comparison with $Mn(NH_4)_2(SO_4)_2 \cdot 6H_2O$, for which all the para-
meters characterizing the paramagnetic relaxation are known. The measurements have
shown that the paramagnetic absorption and the spin-lattice relaxation times are
independent of the orientation in the case of Mn^{++}, Fe^{+++}, and Cr^{+++} salts, but
in the case of Cu^{++} the paramagnetic relaxation coefficient and the spin-lattice
relaxation time are anisotropic. In Tutton's salt the paramagnetic absorption
differs from that of other copper salts in that it becomes independent of the mag-
netic field above ~1500 oe. For copper sulphate the spin-lattice relaxation time
at zero field depends on the orientation of the single crystal; at infinite field
the maximum ratio of the relaxation times in the different directions is 1.6. The
scatter of the relaxation time at zero field does not exceed 4%. For the double
copper salts, the spin-lattice relaxation time at zero field does not depend on
the single crystal orientation, but its values exhibit a scatter up to 20%, and at
infinite field the ratio of the relaxation time along the different axes is 1.2.
It is concluded on the basis of the results that the Brons--Van Vleck formula is
well satisfied in all directions and for the single crystal salts of Mn^{++}, Fe^{+++},
and Cr^{+++} only. The author thanks Professor S. A. Al'tshuler and Professor B. M.
Kozyrev for interest and a discussion of the results. Orig. art. has: 3 figures,
4 formulas, and 2 tables.

SUB CODE: 20/   SUBM DATE: 14Jan64/   ORIG REF: 004/   OTH REF: 003

Card 2/2

VOLOKHOVA, T.I.   VOLOKHOVA, T.I.

The present work deals with the results obtained from measuring the coeffi-
cient χ of absorption in the monocrystals of the salts
$Cu(SO_4).5H_2O$. $Mn(SO_4).4H_2O$ and $Fe(NH_4).(SO_4)_2.12 H_2O$ as function of the di-
rection of the static magnetic field with respect to crystallographic axes.
Measuring was carried out by the method of the lattice current developed by
ZAVOJSKIJ on fresh monocrystals from the mother lye (?). This is of essential
importance for results. The constant (b/c) of magnetic heat capacity was
measured with the generator connected in accordance with ESAU'S scheme. The
monocrystal investigated was spherical with a diameter of 8 mm and was fastened
to the coil of a generator.
Measuring the coefficient χ" (the significance of which is not mentioned) was
carried out in three orientations of the crystal, which were vertical to one
another along the magnetic axis and in two directions which were vertical to
the magnetic axis. The results for a monocrystal of $Cu(SO_4).5H_2O$ are illu-
strated in a diagram. The zero absorption along the magnetic axis is greater
than if vertical to it. The constant of magnetic thermal capacity was de-
termined by means of the formula $b/c = \delta^2/0,41$, where δ denotes the half width

Žurn.eksp.i teor.fis,$\underline{31}$,fasc.5,889-890 (1956)   CARD 2 / 2   PA - 1875

of the experimental curve in Ørsted. For a monocrystal $(b/c)_{\parallel} = 0,4.10^6(Oe)^2$ and $(b/c)_{\perp} = 0,6.10^6 (Oe)^2$ was found. The magnetic heat capacity along the magnetic axis in a $Cu(SO_4).5H_2O$ is less by ~ 33% than in the vertical di-. rection. This agrees also with the results obtained by other authors. For $Cu(SO_4).5H_2O$ powder the author found the value $b/c = 0,47.10^6 (Oe)^2$. For the constant of magnetic heat capacity in the monocrystals of $Mn(SO_4).4 H_2O$ and $Fe(NH_4).(SO_4)_2.12 H_2O$ the values $b/c = 6,3.10^6 (Oe)^2$ and $0,28.10^6 (Oe)^2$ respectively were found. On this occasion no dependence of absorption on the orientation of the crystal in the magnetic field was found. Spin-lattice-relaxation time was measured by means of an ESAU generator at $10,5.10^6$ c. The absorption coefficient along the magnetic axis is by ~ 36% less in the vertical direction. Here this absorption coefficient differs in the two directions which are vertical to each other and to the magnetic axis by about from 10 to 12%. The spin-lattice-relaxation time was computed by the formula developed by KASIMIR and DU PRÉ and results are shown in a table. Also the measurements of spin-lattice relaxation time carried out on monocrystals of $Mn(SO_4).4H_2O$ and $Fe(NH_4)(SO_4)_2.12 H_2O$ disclosed no dependence on the orientation of the crystal in the magnetic field.
INSTITUTION:

VOLOKHOVA, T.M.

Paramagnetic relaxation in single crystals of certain salts of
iron group elements. Zhur. eksp. i teor. fiz. 33 no.4:856-860
O '57.

(MIRA 11:1)

1. Kazanskiy gosudarstvennyy universitet.
                (Crystal lattices)   (Iron group)

VOLOKHOVA, T. M.

AUTHOR: Volokhova, T.M.,   56-4-5/54

TITLE: Paramagnetic Relaxation in Single Crystals of Various Salts of the
            Elements of the Iron Group. (Paramagnitnaya relaksatsiya v mono-
            kristallakh nekotorykh soley elementov gruppy zheleza)

PERIODICAL: Zhurnal Eksperim. I Teoret.Fiziki, 1957, Vol. 33, Nr 4, pp. 856 -
            - 860 (USSR)

ABSTRACT: The following conclusions may be drawn from the measurements per-
            formed: 1) The constant b/c (b = constant of the magnetic heat ca-
            pacity, c= Curie constant) varies as a function of the orientation
            of the magnetic field to the crystal about inversely proportional
            with the statistical susceptibility. 2) In the case of copper sul-
            phates an anisotropy of the spin lattice relaxation time is to be
            noticed. The relaxation time is shortest when the magnetic field
            is orientated in parallel with the axis $\nearrow$. 3) The anisotropy ϱ in
            the crystals $CuSO_4 \cdot 5H_2O$ is considerably higher than in the crystals
            $Cu(NH_4)_2 (SO_4)_2 \cdot 6H_2O$ and $CuK_2(SO_4)_2 \cdot 6H_2O$. 4) In the single cry-
            stals $MnSO_4 \cdot 4H_2O$, $Mn(NH_4)_2(SO_4)_2 \cdot 6H_2O$, $Fe(NH_4)(SO_4)_2 \cdot 12H_2O$ and
            $CrK(SO_4)_2 \cdot 12H_2O$ no dependence of the quantities b/c and ϱ on the
            orientation of the external magnetic field was noticed. There are
            3 figures, 2 tables and 8 Slavic references.

VOLOKHOVA, V. A.,   SHUTER, M. F.,   EGOROVA, R. P.,   BIBIKOVA, V. A.,
ANISIMOVA, I. I.

"The pathogenesis of the plague infection among various types of
sand-rats." p. 280

Desyatoye Soveshchaniye po parazitologicheskim problemam i
prirodnoochagovym boleznyam. 22-29 Oktyabrya 1959 g. (Tenth Conference
on Parasitological Prolbems and Diseases with Natural Foci 22-29
October 1959), Moscow-Leningrad, 1959, Academy of Medical Sciences
USSR and Academy of Sciences USSR, No. 1 254pp.

Central Asiatic Antiplague Inst./Alma-Ata

VOLOKHOVA, V.A., kand.tekhn.nauk (Moskva)

        Altai itinerary. Zdorov'e 6 no.9:32 S '60.   (MIRA 13:8)
                          (ALTAI MOUNTAINS--TRAVEL)

21(4)   SOV/112-59-4-7543

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 4, p 155 (USSR)

AUTHOR: Vartazarov, S. Ya., and Volokhov, V. A.

TITLE: Using the Radioactive-Isotope Method for Checking Quality of Construction
   Work

PERIODICAL: Tr. N.-i. sektora Mosk. fil. in-ta "Orgenergostroy," 1957,
   Nr 1, pp 60-71

ABSTRACT: Possible methods are considered for radioactive checking of the
   quality of construction work at hydraulic developments. Surface and depth
   moisture content and concrete consistency are checked by counting the gamma
   quanta or slow scattered neutrons that are formed as a result of interaction
   between fast neutrons and a moisture-containing medium. For measuring the
   surface moisture content, a source and a detector, separated by a shield, are
   brought to the concrete surface; for depth measurements, the source is
   mounted in a special probe embedded in the concrete. Concrete inhomogeneity

Card 1/2

SOV/112-59-4-7543

Using the Radioactive-Isotope Method for Checking Quality of Construction Work

control is based on the influence of the medium density upon the intensity of
scattered radiation. A scintillation counter is desira' \e as a detector. In
checking deformations of a hydraulic structure, a radiation source with a
collimator sending a narrow gamma beam is embedded in one block, while a
detector in a lead container with a port is embedded in another block. The
radioactive-tracer method can be used to check the quality of cementing the
foundation of a hydraulic structure. The method of measuring scattered gamma
radiation can be conveniently used for checking the wall thickness of penstocks
and aqueducts attacked by corrosion. Recommendations are given for
organizing the work of radioactive checking under field and laboratory
conditions. Six illustrations.

N.V.R.

Card 2/2

VOLOKHOV, V.A., inzh.; MARKOV, Yu.D., inzh.

    Using radioactive isotopes in controlling the quality of laid
    concrete. Prom. stroi. 38 no.5:47-50 '60.   (MIRA 14:5)
                (Radioisotopes—Industrial applications)
                    (Concrete construction)

VOLOKHOVA, V.A

PHASE I

.00000115

Call No.: TK275.V63

BOOK
  Author: VOLOKHOVA, V.A. and OSHER, I.N.
  Full Title: BRIDGES OF DIRECT AND ALTERNATING CURRENTS
  Transliterated Title: Mosty postoyannogo i peremennogo toka.
Publishing Data
  Originating Agency: None
  Publishing House: State Power Publishing House
  Date: 1951   No. pp.: 168   No. copies: 9,000
  Editorial Staff
    Editor: None   Technical Editor: None
    Editor-in-Chief: None   Appraiser: None
Text Data
  Coverage: The book gives an outline of schemes and of construction details of
             measuring bridges for direct and alternating currents. The equipment
             described is that produced by Soviet industry. Instructions are
             included for the proper use of this kind of apparatus as well as
             methods for testing.Description and technical data are given of bridges,
             resistors, inductors and capacitors, also of standard coils and cells
             as well as of sources of feeding.
  Purpose: The book is intended for technicians and foremen.
  Facilities: None.
No. Russian and Slavic references: None.
Available: Library of Congress.

25(5)   SOV/115-59-4-16/27
AUTHORS: Bykov, M.A. and Volokhova, V.A.

TITLE: Starting the Production of High-Voltage, Pressure-
              Type Measuring Capacitors (Ob organizatsii proiz-
              vodstva vysokovol'tnykh izmeritel'nykh kondensato-
              rov s szhatym gazom)

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 4, p 30 (USSR)

ABSTRACT: The Soviet electrical industry does not produce any
              pressure-type capacitors for high-voltage measure-
              ments. The high-voltage bridges MDP of the plant
              "Tochelektropribor" are equipped with air capacitors
              for 10 and 35 kv which is not advantageous. For
              higher voltages, the manufacture of air capacitors
              is practically impossible, since they will have too
              large dimensions. Using gas-filled, pressure-type
              capacitors, the dimensions of the equipment may be
              kept within reasonable limits. Pressure-type capa-
              citors may be built for 100 kv and higher voltages.
              Therefore, the authors demand that the production of
              pressure-type capacitors be started. There is 1
Card 1/1   Soviet reference.

VOLOKHOVA, V.I.

Rapid methods of analysis of brown coal ashes.   Zav.lab.   29   no.7:
804-805 '63.   (MIRA 16:8)

1. Podmoskovnyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy
ugol'nyy institut.
                              (Coal--Analysis)

KOSTSOVA, A.G.; KOZACHENKO, E.I.; OSINA, O.M.; VOLOKHOVA, V.P.; MASLOVA, L.D.

Alkanesulfo acids. Part 32: Some alkanosulfomorpholides. Zhur.
org. khim. 1 no.4:728-730 Ap '65.   (MIRA 18:11)

1. Voronezhskiy gosudarstvennyy universitet.

POLYAKOV, I.M.; KULIKOV, A.I.; SANKOV, Ye.A.; SIYANITSKIY, F.M.; VOLOKHOVA, Ye.S.

Experience in the use of fumigation for the disinfection of waste cottons. Izv.vys.ucheb.zav.; tekh.tekst.prom. no.1:167-168 '62.

(MIRA 15:3)

1. Leningradskiy tekstil'nyy institut im. S.M.Kirova.

(Cotton waste--Disinfection)

L... (1)/EPA(s)-2   Pt-10   IJP(c)/AFWL/SSD/ESD(t)/RAEM(t)   GG

ACCESSION NR: AP4043869   S/0139/64/000/004/0080/0084

AUTHOR: Volokhova, T. I.

TITLE: Concerning an experimental verification of the thermodynamic theory of spin spin paramagnetic relaxation in single crystals of iron-group salts as a function of their orientation in a parallel magnetic field H_0

SOURCE: IVUZ. Fizika, no. 4, 1964, 80-84

TOPIC TAGS: spin relaxation, paramagnetic absorption, single crystal, iron compound, magnetic susceptibility, magnetic specific heat, Curie point

ABSTRACT: The purpose of the research was to ascertain experimentally the variation of the paramagnetic absorption of the imaginary part of the complex magnetic susceptibility $\chi''(H_0)$ as a function of the orientation of single crystals of the iron group element in a

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constant magnetic field, and a determination of the constant b/c
(b -- constant of magnetic specific heat, c -- Curie constant).
The coefficient of paramagnetic absorption was measured by the grid-
current method of Ye. K. Zavoyskiy (Doctoral dissertation, FIAN,
1944). The value of b/c was determined by a method proposed by
N. S. Garif'yanov (ZhETF, v. 25, 359, 1953). The measurements were
made at 600 Mc. The results show that the thermodynamic theory of
I. G. Shaposhnikov (ZhETF, v. 18, 533, 1948) agrees well with the
phenomena of paramagnetic relaxation in single crystals of the fol-
lowing salts:

$$MnSO_4 \cdot 4H_2O, \; Mn(NH_4)_2(SO_4)_2 \cdot 6H_2O, \; Fe(NH_4)(SO_4)_2 \cdot 12H_2O,$$

$$Cr K(SO_4)_2 \cdot 12H_2O, \; Cu SO_4 \cdot 5H_2O, \; Cu(NH_4)_2(SO_4)_2 \cdot 6H_2O,$$

$$CuK_2(SO_4)_2 \cdot 6H_2O, \; CuCl_2(NH_4)_2 Cl_2 \cdot 2H_2O, \; NiSO_4 \cdot 7H_2O.$$

The constant b/c was found to be anisotropic in single crystals of
copper salts, and since b is independent of the orientation, this
anisotropy is due to the anisotropy of the magnetic static suscepti-

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bility. "I thank Professor S. A. Al'tshuler for suggesting the topic and guidance, and Professor B. M. Kozy*rev for interest in the work." Orig. art. has: 2 figures, 8 formulas, and 1 table.

ASSOCIATION: Kazanskiy gosuniversitet (Kazan' State University)

SUBMITTED: 05Feb63   ENCL: 00

SUB CODE: EM, NP   NR REF SOV: 006   OTHER: 003

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5(4)

AUTHORS: Rabinovich, I. B., Volokhova, Z. V.   SOV/20-122-5-27/56

TITLE: The Influence of the Substitution of Hydrogen by
              Deuterium Upon the Polarizability of Molecules (Vliyaniye
              zameshcheniya vodoroda deyteriyem na polyarizuyemost'
              molekul)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 5,
              pp 844 - 847 (USSR)

ABSTRACT: This paper deals with the investigation of the
              dispersion of light and with the calculation of the
              static polarizability (α_0) of 12 liquid deuterium
              compounds and their   analogous hydrogen compounds.
              The formulae of these compounds are given in full
              in a table. The refraction index was measured by means
              of the refractometer IRF-23 (Pulfrich (Pul'frikh) type,
              relative exactness 2.10^{-5}) at $293 \pm 0.05^{\circ}$K for the
              lines $H\alpha$, D, Hg_{green}, $H\beta$, and $Hg_{blue-violet}$. The
              static polarizability was determined by extrapolation
              to $\nu = 0$ of the dependence of $(n^2+2)/(n^2-1)$ on ν^2

Card 1/3   where ν denotes the frequency of the light. For all

the investigated substances, this dependence was
linear in the investigated frequency interval. All
the 12 investigated deuterium-compounds have a lower
refraction index and a lower polarizability than the
corresponding hydrogen compounds. The decrease
of the polarizability may be explained by the decrease
of the zero energy (ξ_o) of the atomic vibrations.
However, the substitution of hydrogen by deuterium
practically does not change the potential curve of
the electron energy and the force constants of the
bonds (f). In the simplest case of a 2-atom molecule,
a decrease of the vibration levels of the electron
spectra increases the energy of the electron transitions
$(\xi_{electron\ transition})$ from the ground (0) level to
the excited level (i). An expression for $\Delta\xi_{el.tr} =$
$= \xi^{o,i}_{el.tr.D} - \xi^{o,i}_{el.tr.H}$ is deduced. It holds that

$\Delta\xi_{el.tr} > 0$ or $\nu_{i,D} > \nu_{i,H}$ where ν_i denotes the frequency

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The Influence of the Substitution of Hydrogen by   SOV/20-122-5-27/56
Deuterium Upon the Polarizability of Molecules

of the electron transition. This inequation, is valid
probably also for polyatomic molecules. The above-
given inequation is confirmed also by experimental
data. A dispersion formula for the polarizability α of
the molecule is given. Probably, $\alpha_D < \alpha_H$ which
corresponds to the experimental data. The
author thanks L.S. Mayants for discussing the results.
There are 1 figure and 14 references, 7 of which are Soviet.

ASSOCIATION: Institut khimii pri Gor'kovskom gosudarstvennom universitete
im.N.I.Lobachevskiy (Institute of Chemistry of Gor'kiy
State University imeni N.I.Lobachevskogo)
PRESENTED: June 27, 1958, by A.N.Frumkin, Academician
SUBMITTED: June 6, 1958

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$VOLOKHOVA, Z.V.$

STRUCTURE AND PHYSICAL PROPERTIES OF MATTER IN A LIQUID STATE
reports read at the 4th Conference convened in KIYEV from 1 to 5 June
1959, published by the publisheir House of KIYEV University, KIYEV,
USSR, 1962

RABINOVICH, I.B. (Gor'kyi); Pri uchastii: GOLOV, V.G.; NIKOLAYEV, P.N.;
    VOLOKHOVA, Z.V.; KUCHERYAVYY, V.I.

   Effect of substituting deuterium for hydrogen on the velocity of
   sound and the compressibility of liquids. Zhur. fiz. khim.
   34 no.2:423-431 F '60.   (MIRA 14:7)

   1. Gor'kovskiy gosudarstvennyy universitet im. N.I.Lobachevskogo,
   Institut khimii.
           (Deuterium) (Sound--Speed) (Compressibility)

VOLOKHVYANSKAYA, E. S. Cand Tech Sci -- (diss) "Evaluation of the Quality of Structural Parts of Railroad Equipment and Rolling Stock." Mos, 1957. 18 pp 21 cm. (Min Railways USSR, All-Union Scientific Research Inst of Rail Transport), 100 copies (KL, 27-57, 106)

Translation from: Referativnyy zhurnal. Metallurgiya, 1957, Nr 1, p 182 (USSR)   SOV/137-57-1-1374

AUTHORS: Volokhvyanskaya, E. S., In'shakov, N. N., Shchapov, N. P.

TITLE: Investigation of Structural Steel With a High Arsenic Content (Issledovaniye stroitel'noy stali s povyshennym soderzhaniyem mysh'yaka)

PERIODICAL: Tr. Vses. n.-i. in-ta zh.-d. transp., 1956, Nr 116, pp 16-46

ABSTRACT: The authors carried out a comparative investigation of St. 3 steels with different As contents as well as of killed steel containing traces of As (0.01%) and of rimmed steel rolled into plates and channels. Deep etching exposed a relatively low liquation in killed steel and considerably greater liquation in rimmed steel. The character and distribution of nonmetallic impurities are not affected by a high As content. The microstructure of the steel from all the heats is identical to that of the St. 3 steel. The strength and ductility of the steel were determined by means of static tensile testing of flat specimens cut out lengthwise and crosswise from the rolled steel and of Gagarin samples. For the study of susceptibility to aging Gagarin specimens were cut out of plates that had been strain-hardened by 10% stretching with a subsequent one-hour aging at

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Investigation of Structural Steel With a High Arsenic Content
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$250^\circ C$; the Gagarin specimens were cut along the direction of stretch and per-
pendicularly and at a 45° angle thereto. Moreover, the hardness was determined
on the Brinell apparatus with a 750-kg load and a 5-mm ball diameter; the a_k of
the experimental heats was determined on standard specimens, cut lengthwise
and crosswise from the rolled steel, both as delivered and after strain-hardening
and aging. It was established that up to 0.23% As in open-hearth steel has ro
marked effect on its mechanical properties and susceptibility to aging: σ_W, the
sensitivity to stress concentration and overloading, as well as σ_W in a corrosive
medium are virtually the same in steel with 0.23% As as in As-free steel. A
certain decrease in a_k values occurs with a >0.18% content of As. A local
increase in As content is possible as the result of liquation. Consequently, a
maximum As content of the order of 0.14 - 0.15 is recommended for acceptance
tests.

A. M.

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VOLOKHVYANSKAYA, E.S., kand. tekhn. nauk.

Effect of manufacturing technology on brittle fracture of bolts.
Vest. TSNII MPS 17 no.4:47-49 Je '58.   (MIRA 11:6)
                         (Bolts and nuts)

VOLOKHVYANSKAYA, E.S.,kand.tekhn.nauk

Mechanical properties of low-alloy structural steels. Trudy
TSNII MPS no.164:14-72 '58.   (MIRA 12:2)
                    (Steel, Structural)